NUMBER

DATE

PRIORITY INFORMATION:

FR 1991-9029

19910717

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER: LEGAL REPRESENTATIVE: Venkat, Jyothsan

NUMBER OF CLAIMS:

Oliff & Berridge

EXEMPLARY CLAIM:

10

1

LINE COUNT:

494

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A cosmetic or dermatological composition with a depigmenting action comprises derivatives of 2,5-dihydroxyphenylcarboxylic acids, their homologs, and their salts, with the derivatives having the following structural formula: ##STR1## wherein: R.sub.1 represents OR.sub.5, OH, or ##STR2## R.sub.5 is a linear or branched C.sub.1 -C.sub.20 alkyl radical, a linear or branched C.sub.2 -C.sub.20 alkenyl radical, or a

C.sub.1 -C.sub.20 alkyl radical substituted by one or more hydroxy or alkoxy groups;

r' and r", identical or different, represent a hydrogen atom, a C.sub.1 -C.sub.20 alkyl radical, a C.sub.2 -C.sub.6 hydroxyalkyl radical, or a C.sub.3 -C.sub.6 polyhydroxyalkyl, or r' and r" taken together, with the nitrogen atom, form a heterocycle;

the number of carbon atoms in the -- (CH.sub.2).sub.n -- COR.sub.1 chain is less than or equal to 21;

R.sub.2 and R.sub.3, identical or different, represent a hydrogen atom, a linear or branched C.sub.1 -C.sub.4 alkyl radical, or a C.sub.1 -C.sub.4 alkoxy; R.sub.4 represents a hydrogen atom or a linear or branched C.sub. -C.sub.4 alkyl radical; and

n is an integer from 0 to 20, provided that, when R.sub.2 and R.sub.3 represent a hydrogen atom, n is greater than or equal to 2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

10538-47-3P, 2,5-Dihydroxyphenyl propionic acid

20452-54-4P 54637-01-3P 70318-72-8P

146803-72-7P

(preparation of, as skin-depigmentation agent, for cosmetics)

10538-47-3 USPATFULL RN

Benzenepropanoic acid, 2,5-dihydroxy- (9CI) (CA INDEX NAME) CN

CH2-CH2-CO2H OH

20452-54-4 USPATFULL RN

CN Benzenepropanoic acid, 2,5-dihydroxy-, ethyl ester (9CI) (CA INDEX NAME)

RN 54637-01-3 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-, dodecyl ester (9CI) (CA INDEX NAME)

RN 70318-72-8 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-4-methyl- (9CI) (CA INDEX NAME)

$$CH_2-CH_2-CO_2H$$

OH

RN 146803-72-7 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

HO 
$$CH_2-CH_2-C-OEt$$
OH

L24 ANSWER 2 OF 4 USPATFULL on STN

ACCESSION NUMBER: 96:118389 USPATFULL

TITLE: Utilization of derivatives of 2,5 dihydroxyphenyl-

carboxylic acid amides and their salts in preparation

of a cosmetic or dermatological composition

with a depigmenting action

INVENTOR(S): Junino, Alex, Livry Gargan, France

LaGrange, Alain, Chatou, France N'Guyen, Quang L., Antony, France Bourboulon, Marie-Alix, Paris, France

PATENT ASSIGNEE(S): L'Oreal, Paris, France (non-U.S. corporation)

<C10/789,293 Page 22

APPLICATION INFO.: US 1995-465105 19950605 (8)
RELATED APPLN. INFO.: Division of Ser. No. US 1992-913950, filed on 17 Jul

RELATED APPLN. INFO.: Division of Ser. No. US 1992-913950, fill 1992, now patented, Pat. No. US 5449518

NUMBER DATE

\_\_\_\_\_

PRIORITY INFORMATION: FR 1991-9029 19910717

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Venkat, Jyothsna LEGAL REPRESENTATIVE: Oliff & Berridge

NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
LINE COUNT: 483

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A cosmetic or dermatological composition with a depigmenting action comprises derivatives of 2,5-dihydroxyphenylcarboxylic acids, their homologs, and their salts, with the derivatives having the following structural formula: ##STR1## wherein: R.sub.1 represents OR.sub.5, OH, or ##STR2## R.sub.5 is a linear or branched C.sub.1 -C.sub.20 alkyl radical, a linear or branched C.sub.2 -C.sub.20 alkenyl radical, or a C.sub.1 -C.sub.20 alkyl radical substituted by one or more hydroxy or alkoxy groups;

r' and r", identical or different, represent a hydrogen atom, a C.sub.1 -C.sub.20 alkyl radical, a C.sub.2 -C.sub.6 hydroxyalkyl radical, or a C.sub.3 -C.sub.6 polyhydroxyalkyl, or r' and r" taken together, with the nitrogen atom, form a heterocycle;

the number of carbon atoms in the --(CH.sub.2).sub.n --COR.sub.1 chain is less than or equal to 21;

R.sub.2 and R.sub.3, identical or different, represent a hydrogen atom, a linear or branched C.sub.1 -C.sub.4 alkyl radical, or a C.sub.1 -C.sub.4 alkoxy; R.sub.4 represents a hydrogen atom or a linear or branched C.sub.1 -C.sub.4 alkyl radical; and

n is an integer from 0 to 20, provided that, when R.sub.2 and R.sub.3 represent a hydrogen atom, n is greater than or equal to 2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 10538-47-3P, 2,5-Dihydroxyphenyl propionic acid

20452-54-4P 54637-01-3P 70318-72-8P

146803-72-7P

(preparation of, as skin-depigmentation agent, for cosmetics)

RN 10538-47-3 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy- (9CI) (CA INDEX NAME)

RN 20452-54-4 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-, ethyl ester (9CI) (CA INDEX NAME)

RN 54637-01-3 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-, dodecyl ester (9CI) (CA INDEX NAME)

RN 70318-72-8 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-4-methyl- (9CI) (CA INDEX NAME)

RN 146803-72-7 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{O} & \text{O} \\ \text{HO} & \text{CH}_2\text{--}\text{CH}_2\text{--}\text{C}\text{--}\text{OEt} \\ \\ \text{Me} & \text{OH} \end{array}$$

L24 ANSWER 3 OF 4 USPATFULL on STN

ACCESSION NUMBER:

96:116116 USPATFULL

TITLE:

Utilization of derivatives of 2,5-

dihydroxyphenylcarboxylic acids, their homologs, and

their salts in preparation of a cosmetic or

dermatological composition with a depigmenting action

INVENTOR(S):

Junino, Alex, Livry Gargan, France Lagrange, Alain, Chatou, France <C10/789,293 Page 24

> N'guyen, Quang L., Antony, France Bourboulon, Marie-Alix, Paris, France

L'Oreal, Paris, France (non-U.S. corporation) PATENT ASSIGNEE(S):

NUMBER KIND DATE -----

US 1995-444276 Division of 1 19961217 19950518 (8) PATENT INFORMATION: APPLICATION INFO.:

RELATED APPLN. INFO.: Division of Ser. No. US 1992-913950, filed on 17 Jul

1992, now patented, Pat. No. US 5449518

NUMBER DATE \_\_\_\_\_

PRIORITY INFORMATION: FR 1991-9029 19910717

DOCUMENT TYPE: Utility FILE SEGMENT: Granted

PRIMARY EXAMINER: Venkat, Jyothsna LEGAL REPRESENTATIVE: Oliff & Berridge

NUMBER OF CLAIMS: 8 EXEMPLARY CLAIM: 1 LINE COUNT: 548

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A cosmetic or dermatological composition with a depigmenting action comprises derivatives of 2,5-dihydroxyphenylcarboxylic acids, their homologs, and their salts, with the derivatives having the following structural formula: ##STR1## wherein: R.sub.1 represents OR.sub.5, OH, or ##STR2## R.sub.5 is a linear or branched C.sub.1 -C.sub.20 alkyl radical, a linear or branched C.sub.2 -C.sub.20 alkenyl radical, or a C.sub.1 -C.sub.20 alkyl radical substituted by one or more hydroxy or alkoxy groups;

r' and r", identical or different, represent a hydrogen atom, a C.sub.1 -C.sub.20 alkyl radical, a C.sub.2 -C.sub.6 hydroxyalkyl radical, or a C.sub.3 -C.sub.6 polyhydroxyalkyl, or r' and r" taken together, with the nitrogen atom, form a heterocycle;

the number of carbon atoms in the -- (CH.sub.2).sub.n -- COR.sub.1 chain is less than or equal to 21;

R.sub.2 and R.sub.3, identical or different, represent a hydrogen atom, a linear or branched C.sub.1 -C.sub.4 alkyl radical, or a C.sub.1 -C.sub.4 alkoxy;

R.sub.4 represents a hydrogen atom or a linear or branched C.sub.1 -C.sub.4 alkyl radical; and

n is an integer from 0 to 20, provided that, when R.sub.2 and R.sub.3 represent a hydrogen atom, n is greater than or equal to 2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

10538-47-3P, 2,5-Dihydroxyphenyl propionic acid

20452-54-4P 54637-01-3P 70318-72-8P

146803-72-7P

(preparation of, as skin-depigmentation agent, for cosmetics)

RN 10538-47-3 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy- (9CI) (CA INDEX NAME)

RN 20452-54-4 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-, ethyl ester (9CI) (CA INDEX NAME)

RN 54637-01-3 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-, dodecyl ester (9CI) (CA INDEX NAME)

RN 70318-72-8 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-4-methyl- (9CI) (CA INDEX NAME)

RN 146803-72-7 USPATFULL

HO 
$$CH_2-CH_2-C-OEt$$
OH

L24 ANSWER 4 OF 4 USPATFULL on STN

ACCESSION NUMBER: 95:82117 USPATFULL

TITLE: Utilization of derivatives of 2,5-dihydroxyphenyl-

carboxylic acids, their homologs, and their salts in

preparation of a cosmetic or dermatological

composition with a depigmenting action

INVENTOR(S): Junino, Alex, Livry Gargan, France

> Lagrange, Alain, Chatou, France N'Guyen, Quang L., Antony, France Bourboulon, Marie-Alix, Paris, France

L'Oreal, Paris, France (non-U.S. corporation) PATENT ASSIGNEE(S):

NUMBER KIND DATE -----US 5449518 19950912

PATENT INFORMATION: US 1992-913950 APPLICATION INFO.: 19920717 (7)

> NUMBER DATE -----

FR 1991-9029 PRIORITY INFORMATION: 19910717 DOCUMENT TYPE: Utility

FILE SEGMENT: Granted PRIMARY EXAMINER:

Page, Thurman K. ASSISTANT EXAMINER: Venkat, Jyothsna Oliff & Berridge LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1 LINE COUNT: 493

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A cosmetic or dermatological composition with a depigmenting action comprises derivatives of 2,5-dihydroxyphenylcarboxylic acids, their homologs, and their salts, with the derivatives having the following structural formula: ##STR1## wherein: R.sub.1 represents OR.sub.5, or ##STR2## R.sub.5 is a hydrogen atom, a linear or branched C.sub.1 -C.sub.20 alkyl radical, a linear or branched C.sub.2 -C.sub.20 alkenyl radical, or a C.sub.1 -C.sub.20 alkyl radical substituted by one or more hydroxy or alkoxy groups; r' and r", identical or different, represent a hydrogen atom, a C.sub.1 -C.sub.20 alkyl radical, a C.sub.2 -C.sub.6 hydroxyalkyl radical, or a C.sub.3 -C.sub.6 polyhydroxyalkyl, or r' and r" taken together, with the nitrogen atom, form a heterocycle; the number of carbon atoms in the --(CH.sub.2).sub.n --COR.sub.1 chain is less than or equal to 21;

R.sub.2 and R.sub.3, identical or different, represent a hydrogen atom, a linear or branched C.sub.1 -C.sub.4 alkyl radical, or a C.sub.1 -C.sub.4 alkoxy; R.sub.4 represents a hydrogen atom or a linear or branched C.sub.1 -C.sub.4 alkyl radical; and n is an integer from 0 to 20, provided that, when R.sub.2 and R.sub.3 represent a hydrogen atom,  $\boldsymbol{n}$ is greater than or equal to 2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT. IT 10538-47-3P, 2,5-Dihydroxyphenyl propionic acid <C10/789,293

Page 27

20452-54-4P 54637-01-3P 70318-72-8P 146803-72-7P

(preparation of, as skin-depigmentation agent, for cosmetics)

RN 10538-47-3 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy- (9CI) (CA INDEX NAME)

RN 20452-54-4 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-, ethyl ester (9CI) (CA INDEX NAME)

RN 54637-01-3 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-, dodecyl ester (9CI) (CA INDEX NAME)

RN 70318-72-8 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-4-methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{HO} \\ \text{CH}_2\text{--}\text{CH}_2\text{--}\text{CO}_2\text{H} \\ \\ \text{OH} \end{array}$$

RN 146803-72-7 USPATFULL

CN Benzenepropanoic acid, 2,5-dihydroxy-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{O} \\ \text{HO} \\ \text{CH}_2\text{-}\text{CH}_2\text{-}\text{C}\text{-}\text{OEt} \\ \\ \text{OH} \end{array}$$

=> file reg COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 51.62 340.65 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL SESSION ENTRY CA SUBSCRIBER PRICE 0.00 -7.02

FILE 'REGISTRY' ENTERED AT 10:10:06 ON 14 JUN 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 13 JUN 2007 HIGHEST RN 937234-16-7 DICTIONARY FILE UPDATES: 13 JUN 2007 HIGHEST RN 937234-16-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

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http://www.cas.org/support/stngen/stndoc/properties.html

=> d 12 L2 HAS NO ANSWERS L2 STR <C10/789,293 Page 29

Structure attributes must be viewed using STN Express query preparation.

## => d his

```
(FILE 'HOME' ENTERED AT 09:55:42 ON 14 JUN 2007)
     FILE 'REGISTRY' ENTERED AT 09:57:43 ON 14 JUN 2007
L1
                SCREEN 1006
L2
                STRUCTURE UPLOADED
L3
                QUE L2 AND L1
             50 S L1
L4
              4 S L2
L5
        1363011 S 2/NRS AND 4-4/0
L6
L7
             50 S L2 SAM SUB=L6
        5803260 S 2-4/NRS AND 4-6/0
L8
L9
              1 S BENZENE/CN
         471243 S 1/NRS AND 4-5/O AND 46.150/RID
L10
L11
         317731 S 1/NRS AND 4/O AND 46.150/RID
             20 S L2 SAM SUB=L11
L12
L13
            629 S L2 FUL SUB=L11
     FILE 'ZCAPLUS' ENTERED AT 10:02:24 ON 14 JUN 2007
           1500 S L13
L14
L15
              6 S COSMETIC/TI AND L14
L16
           3408 S SKIN LIGHT?
              5 S L14 AND L16
L17
              5 S L17 NOT 15
L18
              3 S L17 NOT L15
L19
     FILE 'USPATFULL, USPAT2' ENTERED AT 10:08:43 ON 14 JUN 2007
L20
           381 S L13
L21
           1916 S SKIN LIGHT?
L22
            18 S L20 AND L21
L23
           7475 S COSMETIC?/TI
L24
              4 S L23 AND L22
```

FILE 'REGISTRY' ENTERED AT 10:10:06 ON 14 JUN 2007

```
<---->
```

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.45	341.10
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-7.02
, 2	ENTRY	SESSION

STN INTERNATIONAL LOGOFF AT 10:10:29 ON 14 JUN 2007

<C10/789,293 Page 1

```
=> d 12
L2 HAS NO ANSWERS
L2 STR
```

G1 C, H, S G2 C, H, Cy, Hy

Structure attributes must be viewed using STN Express query preparation.

```
=> d his
```

```
(FILE 'HOME' ENTERED AT 09:55:42 ON 14 JUN 2007)
```

```
FILE 'REGISTRY' ENTERED AT 09:57:43 ON 14 JUN 2007
L1
                SCREEN 1006
L2
                STRUCTURE UPLOADED
                QUE L2 AND L1
L3
             50 S L1
L4
              4 S L2
L5
        1363011 S 2/NRS AND 4-4/0
L6
             50 S L2 SAM SUB=L6
L7
        5803260 S 2-4/NRS AND 4-6/0
\Gamma8
              1 S BENZENE/CN
L9
         471243 S 1/NRS AND 4-5/O AND 46.150/RID
L10
L11
         317731 S 1/NRS AND 4/O AND 46.150/RID
L12
             20 S L2 SAM SUB=L11
            629 S L2 FUL SUB=L11
L13
     FILE 'ZCAPLUS' ENTERED AT 10:02:24 ON 14 JUN 2007
L14
           1500 S L13
              6 S COSMETIC/TI AND L14
L15
L16
           3408 S SKIN LIGHT?
L17
              5 S L14 AND L16
              5 S L17 NOT 15
L18
              3 S L17 NOT L15
L19
     FILE 'USPATFULL, USPAT2' ENTERED AT 10:08:43 ON 14 JUN 2007
L20
            381 S L13
L21
           1916 S SKIN LIGHT?
             18 S L20 AND L21
L22
L23
           7475 S COSMETIC?/TI
              4 S L23 AND L22
L24
```

<C10/789,293

```
10/789,293
```

```
=> d 12
L2 HAS NO ANSWERS
L2 STR
```

G1 C, H, S G2 C, H, Cy, Hy

Structure attributes must be viewed using STN Express query preparation.

## => d his

```
(FILE 'HOME' ENTERED AT 09:55:42 ON 14 JUN 2007)
```

```
FILE 'REGISTRY' ENTERED AT 09:57:43 ON 14 JUN 2007
                SCREEN 1006
L1
L2
                STRUCTURE UPLOADED
                QUE L2 AND L1
L3
             50 S L1
L4
              4 S L2
L5
        1363011 S 2/NRS AND 4-4/0
L6
L7
             50 S L2 SAM SUB=L6
L8
        5803260 S 2-4/NRS AND 4-6/0
              1 S BENZENE/CN
L9
         471243 S 1/NRS AND 4-5/O AND 46.150/RID
L10
L11
         317731 S 1/NRS AND 4/O AND 46.150/RID
L12
             20 S L2 SAM SUB=L11
            629 S L2 FUL SUB=L11
L13
     FILE 'ZCAPLUS' ENTERED AT 10:02:24 ON:14 JUN 2007
L14
           1500 S L13
              6 S COSMETIC/TI AND L14
L15
L16
           3408 S SKIN LIGHT?
L17
              5 S L14 AND L16
              5 S L17 NOT 15
L18
              3 S L17 NOT L15
L19
     FILE 'USPATFULL, USPAT2' ENTERED AT 10:08:43 ON 14 JUN 2007
L20
           381 S L13
           1916 S SKIN LIGHT?
L21
            18 S L20 AND L21
L22
L23
           7475 S COSMETIC?/TI
L24
              4 S L23 AND L22
```

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